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**United States Patent** [19]

Mrklas et al.

[11] **Patent Number:** **5,304,112**[45] **Date of Patent:** **Apr. 19, 1994****[54] STRESS REDUCTION SYSTEM AND METHOD**

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**[52] U.S. Cl.** ..... **600/27; 434/236; 601/15**

**[58] Field of Search** ..... **434/236, 237, 238; 600/26, 27, 28, 21; 128/24.1, 24.2, 24.3, 33, 32**

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**[57] ABSTRACT**

An integrated stress reduction system detects the stress level of a subject and displays a light pattern reflecting the relationship between the subject's stress level and a target level. At the same time, the system provides relaxing visual, sound, tactile, environmental, and other effects to aid the subject in reducing his or her stress level to the target level. In one preferred embodiment, the intensity, type, and duration of the relaxing effects are controlled by a computer program in response to the measured stress level. The light pattern stress level display uses a laser which is deflected on one axis by a measured stress level signal and on a second axis perpendicular to the first by a target signal representing the target stress level. The pattern produced is more complex when the two signals do not coincide, and becomes a less complex geometric figure as the subject's stress level approaches the target.

**25 Claims, 9 Drawing Sheets**